

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference C2949-PCT	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/BE2004/000118	International filing date (day/month/year) 16/08/2004	(Earliest) Priority Date (day/month/year) 14/08/2003
Applicant  D. COLLEN RESEARCH FOUNDATION VZW		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 7 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☒ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☒ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

ANTIBODIES AGAINST FACTOR VIII WITH MODIFIED GLYCOSYLATION IN THE VARIABLE REGION

5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 8



as suggested by the applicant.



as selected by this Authority, because the applicant failed to suggest a figure.



as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/BE2004/000118

## Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
- a. type of material
- ☒ a sequence listing
- ☐ table(s) related to the sequence listing
- b. format of material
- ☒ in written format
- ☒ in computer readable form
- c. time of filing/furnishing
- ☒ contained in the international application as filed
- ☒ filed together with the international application in computer readable form
- ☐ furnished subsequently to this Authority for the purpose of search
2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61P07/02 A61K39/395 C07K16/36

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, Sequence Search

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/04269 A (SAINT REMY JEAN MARIE R ; JACQUEMIN MARC G (BE); LEUVEN RES & DEV VZW) 18 January 2001 (2001-01-18) page 25, line 4 - page 26, line 8 examples 5,7 figures 8,9	30,31
X	----- KALLAS ADE ET AL: "Epitope specificity of anti-FVIII antibodies during immune tolerance therapy with factor VIII preparation containing von Willebrand factor." THROMBOSIS RESEARCH, vol. 107, no. 6, 15 September 2002 (2002-09-15), pages 291-302, XP008041463 ISSN: 0049-3848 page 295, right-hand column, paragraph 2 ----- -/--	26,30,31

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \* & \* document member of the same patent family

Date of the actual completion of the international search

19 January 2005

Date of mailing of the international search report

02/02/2005

Name and mailing address of the ISA

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Authorized officer

COVONE-VAN HEES, M

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SINGH INDERJIT ET AL: "Antithrombotic effects of controlled inhibition of factor VIII with a partially inhibitory human monoclonal antibody in a murine vena cava thrombosis model." BLOOD. 1 MAY 2002, vol. 99, no. 9, 1 May 2002 (2002-05-01), pages 3235-3240, XP002314128 ISSN: 0006-4971	30,31
A	the whole document	15-19
A	----- WRIGHT A: "ANTIBODY VARIABLE REGION GLYCOSYLATION: POSITION EFFECTS ON ANTIGEN BINDING AND CARBOHYDRATE STRUCTURE" EMBO JOURNAL, OXFORD UNIVERSITY PRESS, SURREY, GB, vol. 10, no. 10, 1 October 1991 (1991-10-01), pages 2717-2723, XP000219694 ISSN: 0261-4189 page 2717, right-hand column, lines 25-31 page 2720, right-hand column, lines 1-6 page 2721, left-hand column, lines 14-17 table II	1-33
A	----- KATO MASATOSHI ET AL: "Activity enhancement of a lung cancer-associated human monoclonal antibody HB4C5 by N-deglycosylation" HUMAN ANTIBODIES AND HYBRIDOMAS, vol. 4, no. 1, 1993, pages 9-14, XP008041607 abstract	1-33
A	----- SATO KOH ET AL: "Humanization of an anti-human IL-6 mouse monoclonal antibody glycosylated in its heavy chain variable region" HUMAN ANTIBODIES AND HYBRIDOMAS, vol. 7, no. 4, 1996, pages 175-183, XP008041468 ISSN: 0956-960X abstract	1-33
A	----- KHURANA SUMIT ET AL: "The variable domain glycosylation in a monoclonal antibody specific to GnRH modulates antigen binding" BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, vol. 234, no. 2, 1997, pages 465-469, XP008041466 ISSN: 0006-291X page 467, left-hand column, paragraph 2 ----- -/--	1-33

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 822 255 A (WELLCOME FOUND) 4 February 1998 (1998-02-04) the whole document	1
P, X	----- DATABASE BIOSIS 'Online! BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 16 November 2003 (2003-11-16), JACQUEMIN MARC G ET AL: "Glycosylation of a type 2 factor VIII inhibitor determines its maximum level of FVIII inhibition." XP002314129 Database accession no. PREV200400181293 abstract	1-33
P, X	& BLOOD, vol. 102, no. 11, 16 November 2003 (2003-11-16), page 163a, 45TH ANNUAL MEETING OF THE AMERICAN SOCIETY OF HEMATOLOGY; SAN DIEGO, CA, USA; DECEMBER 06-09, 2003 ISSN: 0006-4971 -----	1-33

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/BE2004/000118

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 15-19 (partially)  
because they relate to subject matter not required to be searched by this Authority, namely:  
Although claims 15-19 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0104269	A	18-01-2001	AU 6273000 A	30-01-2001
			CA 2381125 A1	18-01-2001
			WO 0104269 A1	18-01-2001
			EP 1194528 A1	10-04-2002
			JP 2003504045 T	04-02-2003
EP 0822255	A	04-02-1998	EP 1247865 A2	09-10-2002
			EP 0822255 A2	04-02-1998
			AT 176926 T	15-03-1999
			AU 645355 B2	13-01-1994
			AU 8591491 A	30-04-1992
			CA 2053585 A1	18-04-1992
			DE 69130912 D1	01-04-1999
			DE 69130912 T2	02-09-1999
			DK 481790 T3	27-09-1999
			EP 1484402 A2	08-12-2004
			EP 0481790 A2	22-04-1992
			ES 2131507 T3	01-08-1999
			GR 3030289 T3	30-09-1999
			IE 913558 A1	22-04-1992
			JP 6090752 A	05-04-1994
			NZ 240249 A	25-03-1994
			US 2002182208 A1	05-12-2002
			US 2003035799 A1	20-02-2003
			US 5545403 A	13-08-1996
			US 5545404 A	13-08-1996
			US 5545405 A	13-08-1996
			US 2004228857 A1	18-11-2004
			ZA 9108248 A	16-04-1993